经销商地址:
The contact information of dealer

SANT 微信公众平台
www.hnsant.com

SANT 株洲圣达切削刀具有限公司

2018–2019 版

SANT
数控切削刀具
CNC CUTTING TOOLS

圣达精密车削/铣削/孔加工刀具/工具系统
SANT PRECISION TOOL FOR TURNING / MILLING / DRILLING/TOOLING SYSTEMS

# 2018–2019年产品型录
# CATALOGUE 2018–2019

2018-2019版

SANT 株洲圣达切削刀具有限公司
ZHUZHOU SANT CUTTING TOOLS CO.,LTD.

株洲圣达切削刀具
ZHUZHOU SANT CUTTING

# SANT / 公司简介
# INTRODUCTION

株洲圣达切削刀具有限公司是一家专业设计、制造及销售数控刀具及硬质合金产品的工厂。公司位于中国最大的硬质合金生产基地---株洲。公司目前主要产品有：数控车刀、数控铣刀、孔加工刀具、数控刀片、工具系统及各类硬质合金制品。

公司拥有强大的设计团队，通过了ISO9001质量管理体系认证；采用ERP系统进行高效准确的管理；拥有包括MAZAK五轴联动高精度加工中心、ANCA五轴联动高精度磨削中心在内的多台数控加工设备以及各种检测设备；司时与包括NIHONG-TECHNO热处理公司在内的多家优秀供应商建立了协作关系，以确保“SANT”系列产品的质量始终处于行业领先水平。

公司拥有多年的设计及制造数控刀具及硬质合金产品的经验，能够为客户提供各类非标刀具，也能为您提供整套产品加工所需的刀具配套方案及各类硬质合金制品。公司秉承“质量第一，服务至上”的理念，与全世界许多客户建立了长期友好的合作。

Zhuzhou Sant Cutting Tools Co., Ltd is a modern joint-stock company specializing in the designing, producing and selling of CNC cutting tools and cemented carb de tools. Located in Zhuzhou,one of the biggest manufacturing bases of cemented carbide cutting tools in China,our company mainly produces various cnc turning tools, milling tools, drilling tools, cnc inserts, tooling systems and various cemented carbide tools.

We have strong design team and complete quality-testing system and have passed the ISO9001 Certification of Quality Management System. Besides, ERP system is adopted to improve the efficient and accurate management. More importantly, we have various kinds of processing equipment, including MAZAK five-axis linkage high precision machining center, ANCA five-axis linkage high precision grinding center.In order to make sure the quality of "SANT" series products always stands at the front of the industry, we have established collaboration relationships with many outstanding suppliers including NIHONG TECHNO - the heat treatment company.

With the experience of designing and manufacturing cnc cutting tools for many years, we can provide customers with various non-standard tool holders,and can also provide a complete set of supporting scheme for required tools during the processing as well as varies carbide tools. In accordance with the principle"Quality First, Service Supreme", we have established long-term friendly cooperation relationships with many customers all over the world.

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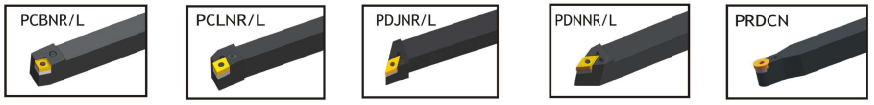
## M类 复合压紧式 Top and hole clamping

### 结构特点:
Design features

·压板和偏心销双重紧固式。 Top and hole clamping dualclamp.
·紧固力强,适用于中～重切削用。Great fastenering faslening force.
·刀片多转位角，经济耐用。Indexable inserts，economy and durability.

## P类 杠杆压紧式 Hole clamping



## ★ 可转位铣削刀具型号表示规则 Milling Tool Code Key

| 主偏角 Lead Angle | | |
|---|---|---|
| A | 45° | |
| D | 60° | |
| E | 75° | |
| P | 90° | |
| Z | 30° | |
| R | 圆形 | |
| X | 特殊 Special | |

| 刀具类别 Type Of Tools | |
|---|---|
| F | 面铣刀 Face milling tool |
| E | 方肩台阶铣刀 Shoulder milling tool |
| B | 仿型铣刀 Profile milling tool |
| T | 槽铣刀 T slot milling tool |
| K | 大给进铣刀 High feed milling cutter |
| C | 倒角铣刀 Chamfer milling tool |
| H | 螺旋立铣刀 Helical end face milling tool |

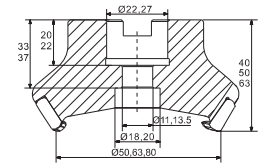
| 切削刃长度(mm) Cutting Edge Length | | | | | | |
|---|---|---|---|---|---|---|
| 刀片 Insert 内接圆直径 Incircle diameter | 刀片形状 Shape of blade | | | | | |
| | C | D | R | S | T | L |
| 5.556 | — | — | — | — | 09 | — |
| 6.350 | 06 | 07 | — | — | 11 | — |
| 9.525 | 09 | 11 | 09 | 09 | 16 | — |
| 12.700 | 12 | 15 | 12 | 12 | 22 | — |
| 15.875 | 16 | 19 | 15 | 15 | 27 | — |
| 19.050 | 19 | — | 19 | 19 | 33 | — |
| 25.400 | 25 | — | 25 | 25 | 44 | 25 |

类别编号 Number Of Type

**A F 01 . 12**

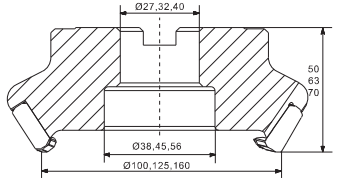
### 套式结构 Shell Structure

A型接口 A Type Of Adapter



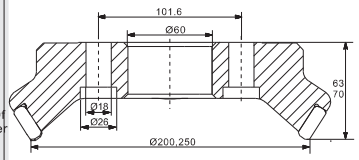

GB5342-96规定的Ø50-Ø80 套式面铣刀
GB5342-96ofø50-ø80shell Facmilling Cutter

B型接口 B Type Of Adapter



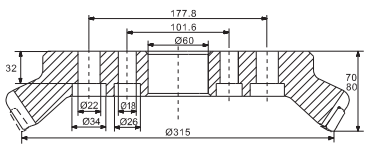

GB5342-96规定的Ø100-Ø160 套式面铣刀
GB5342-96ofø100-ø160shell Facmilling Cutter

C型接口 C Type Of Adapter




GB5342-96规定的Ø200-Ø250
套式面铣刀

D型接口 D Type Of Adapter




GB5342-96规定的Ø315及以上的
套式面铣刀

侧固式柄、直柄、莫式锥柄等连接方式参阅工具系统部分技术资料 Side-locked Shank、Straight Shank、Morse Taper Shank





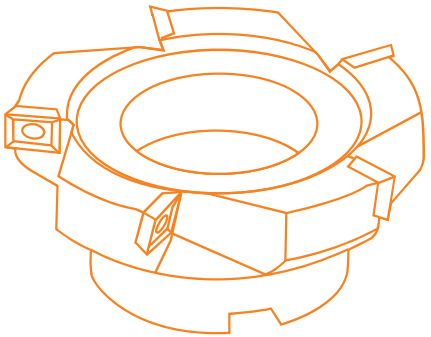
| 刀具安装部位结构(如下图) Tool Installation Position | | | |
|---|---|---|---|
| A | A型接口 A type of adapter | W | 侧固式 Side-locked |
| B | B型接口 B type of adapter | T | 可换头 Replaceable Head |
| C | C型接口 C type of adapter | MT | 莫氏 Morse |
| D | D型接口 D type of adapter | BT | 锥式 Taper |
| Z | 直杆 Straight shank | J | 键槽式 Spline |

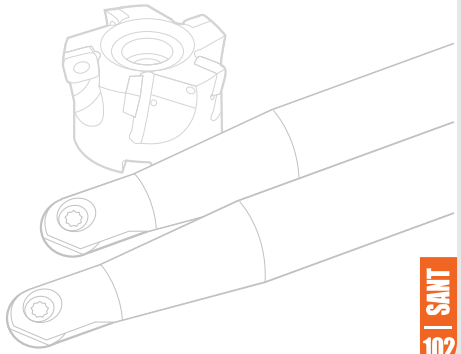
| 切削方向 (R: 右 Right L: 左 Left) Cutting Direction | | 缺省为R型) | 面铣刀具 Face Milling Tool |
|---|---|---|---|
| 刀具长度 Tool Length | S | 短 short | 铣刀杆 Cutter Arbor |
| | M Measure | 标准 Standard | |
| | L | 加长 lengthening | |
| 槽型宽度 Groove Width | H12 | | 三面刃铣刀 Side And Face Milling Tool |
| 最深加工 The deepest machining | 104 | | 螺旋立铣刀 Helical And Face Milling Tool |

**A22 . 050 . 04 . R**

刀具加工部分直径 ØD Diameter

齿数(螺旋立铣刀为槽数) Tooth





## ★ 可转位铣削刀片命名规则 Milling Insert Code Key

### 形状代号

| 刀片形状 / 代号 | | |
|---|---|---|
| A | B | C |
| D | E | H |
| K | L | M |
| O | P | R |
| S | T | V |
| W | 其他 Z | |

形状代号

### 断屑槽及夹固形式

| 公制 | | | | | | | |
|---|---|---|---|---|---|---|---|
| 代号 | 有无孔 | 有无断屑槽 | 刀片剖面 | 代号 | 有无孔 | 有无断屑槽 | 刀片剖面 |
| B | 有 | 无 | | N | 无 | 无 | |
| H | 有 | 单面 | | R | 无 | 单面 | |
| C | 有 | 无 | | F | 无 | 双面 | |
| J | 有 | 双面 | | A | 有 | 无 | |
| W | 有 | 无 | | M | 有 | 单面 | |
| T | 有 | 单面 | | G | 有 | 双面 | |
| Q | 有 | 无 | | X | --- | --- | 特殊 |
| U | 有 | 双面 | | | | | |

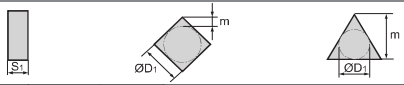
断屑槽及夹固形式

**S P K N**

### 主切削刃后角

| 代号 | 后角(度) | 代号 | 后角(度) |
|---|---|---|---|
| A | 3° | B | 5° |
| C | 7° | D | 15° |
| E | 20° | F | 25° |
| G | 30° | N | 0° |
| P | 11° | O | 其他的后角 |

### 公差



| 代号 | 刀尖高度m 公差(mm) | 内接圆ØD1 公差(mm) | 厚度S1 公差(mm) |
|---|---|---|---|
| A | ±0.005 | ±0.025 | ±0.025 |
| F | ±0.005 | ±0.013 | ±0.025 |
| C | ±0.013 | ±0.025 | ±0.025 |
| H | ±0.013 | ±0.013 | ±0.025 |
| E | ±0.025 | ±0.025 | ±0.025 |
| G | ±0.025 | ±0.025 | ±0.13 |
| J | ±0.005 | ±0.05-±0.13 | ±0.025 |
| K | ±0.013 | ±0.05-±0.13 | ±0.025 |
| L | ±0.025 | ±0.05-±0.13 | ±0.025 |
| M | ±0.08-±0.18 | ±0.05-±0.13 | ±0.13 |
| N | ±0.08-±0.18 | ±0.05-±0.13 | ±0.025 |
| U | ±0.13-±0.38 | ±0.08-±0.25 | ±0.13 |

(参考) M级精度详细情况 ( 按形状、大小分 )

● 刀尖高度公差 ( mm )

| 内接圆 | 正三角形 | 正方形 | 80°菱形 | 55°菱形 | 35°菱形 | 圆形 |
|---|---|---|---|---|---|---|
| 6.35 | ±0.08 | ±0.08 | ±0.08 | ±0.11 | ±0.16 | --- |
| 9.525 | ±0.08 | ±0.08 | ±0.08 | ±0.11 | ±0.16 | --- |
| 12.7 | ±0.13 | ±0.13 | ±0.13 | ±0.15 | --- | --- |
| 15.875 | ±0.15 | ±0.15 | ±0.15 | ±0.18 | --- | --- |
| 19.05 | ±0.15 | ±0.15 | ±0.15 | ±0.18 | --- | --- |
| 25.4 | --- | ±0.18 | --- | --- | --- | --- |

● 内接圆ØD1公差(mm)

| 内接圆 | 正三角形 | 正方形 | 80°菱形 | 55°菱形 | 35°菱形 | 圆形 |
|---|---|---|---|---|---|---|
| 6.35 | ±0.05 | ±0.05 | ±0.05 | ±0.05 | ±0.05 | --- |
| 9.525 | ±0.05 | ±0.05 | ±0.05 | ±0.05 | ±0.05 | ±0.05 |
| 12.7 | ±0.08 | ±0.08 | ±0.08 | ±0.08 | --- | ±0.08 |
| 15.875 | ±0.10 | ±0.10 | ±0.10 | ±0.10 | --- | ±0.10 |
| 19.05 | ±0.10 | ±0.10 | ±0.10 | ±0.10 | --- | ±0.10 |
| 25.4 | --- | ±0.13 | --- | --- | --- | ±0.13 |



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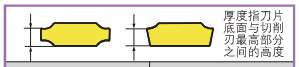
### 切削刃长度

| 内接圆直径 (mm) | 刀片形状 C | D | R | S | T | V | W |
|---|---|---|---|---|---|---|---|
| 3.97 | | | | | 06 | | |
| 5.0 | | | 05 | | | | |
| 5.56 | | | | | 09 | | |
| 6.0 | | | 06 | | | | |
| 6.35 | 06 | 07 | | | 11 | 11 | |
| 8.0 | | | 08 | | | | |
| 9.525 | 09 | 11 | 09 | 09 | 16 | 16 | 06 |
| 10.0 | | | 10 | | | | |
| 12.0 | | | 12 | | | | |
| 12.7 | 12 | 15 | 12 | 12 | 22 | 22 | 08 |
| 15.875 | 16 | | 15 | 15 | 27 | | |
| 16.0 | | 19 | 16 | | | | |
| 19.05 | 19 | | 19 | 19 | 33 | | |
| 20.0 | | | 20 | | | | |
| 25.0 | 25 | 25 | 25 | | | | |
| 25.4 | | | 25 | 25 | | | |
| 31.75 | | | 31 | | | | |
| 32 | | | 32 | | | | |

切削刃长度

### 刀片厚度




| 代号 | 刀片厚度(mm) |
|---|---|
| 00 | 0.79 |
| T0 | 0.99 |
| 01 | 1.59 |
| T1 | 1.98 |
| 02 | 2.38 |
| T2 | 2.58 |
| 03 | 3.18 |
| T3 | 3.97 |
| 04 | 4.76 |
| T4 | 4.96 |
| 05 | 5.96 |
| T5 | 5.95 |
| 06 | 6.35 |
| T6 | 6.75 |
| 07 | 7.94 |
| 09 | 9.52 |
| T9 | 9.72 |
| 11 | 11.11 |
| 12 | 12.70 |

刀片厚度

**12 04 ED T21 R -DM**

### 修光刃

| | Kr | | αn |
|---|---|---|---|
| A | 45° | A | 3° |
| D | 60° | B | 5° |
| E | 75° | C | 7° |
| F | 85° | D | 15° |
| P | 90° | E | 20° |
| Z | 其它 | F | 25° |
| | | G | 30° |
| | | N | 0° |
| | | P | 11° |
| | | Z | 其它 |

### 切削刃倒棱(mm)

| | | | |
|---|---|---|---|
| F | 0-5° | 0-0.10 | K |
| E | 1-10° | 1-0.15 | P |
| T | 2-15° | 2-0.20 | W |
| | 3-20° | 3-0.25 | |
| | 4-25° | 4-0.30 | |
| S | 5-30° | 5-0.35 | |
| | | 6-0.40 | |
| | | 7-0.45 | 不标 |

### 断屑槽型代号

### 切削方向

| | |
|---|---|
| R | 右 |
| L | 左 |
| N | 双向 |



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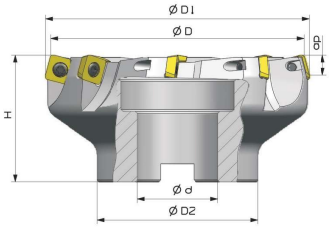
## 面铣刀具 Kr:75°

P M K

# EF04




### ★ 刀具附件 Spare parts

| 刀片 Insert | 刀片螺钉 Insert Screw | 扳手 Wrench |
|---|---|---|
| SPK□1204 | TL60 M5X12 | T20T |

注明：配套刀片建议参考株洲钻石刀片。 Note：The insert is Zccct brand.

### ★ 刀具规格型号 Type of milling tools

| Type 型号 | 基本尺寸(mm) Dimension | | | | | | Adapter 接口形式 | Tooth 齿数 | Weight 重量 (kg) |
|---|---|---|---|---|---|---|---|---|---|
| | $ØD_2$ | $ØD_1$ | ØD | ød | H | $a_p$ | | | |
| **EF04.12A22.050.04** | 40 | 54 | 50 | 22 | 40 | 6 | A | 4 | 0.3 |
| **EF04.12A22.063.05** | 50 | 66 | 63 | 22 | 50 | 6 | A | 5 | 0.6 |
| **EF04.12A27.080.06** | 60 | 83 | 80 | 27 | 50 | 6 | A | 6 | 0.9 |
| **EF04.12B32.100.07** | 70 | 103 | 100 | 32 | 50 | 6 | B | 7 | 1.4 |
| **EF04.12B40.125.08** | 80 | 128 | 125 | 40 | 63 | 6 | B | 8 | 2.5 |



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# 铣削刀具
# MILLING TOOLS

圣达刀具因为专业 所以突出

品质经得起考验

# UD20/25/30/35/40/50 新型浅孔钻系列

1. 采用高强度特种钢材，表面强化处理，刀体强度更高，更加耐磨。
1.Using highly-strength special steel and surface strengthening process, making higher strength and more wear-resistance.

2. 容屑槽空间更大，排屑更顺畅。
2.The space of chip flute is much bigger, the discharge is more smooth.

3. 经过切削平衡设计的刀片安装角度，切削振动小、机床主轴负载低，切削效率高，钻孔精度及表面光洁度更佳。
3.Through the insert install the angle, the insert which is cutting balance design, cutting in low vibration, the lathe main axis load is low. Cutting efficiency is high. Drilling precision and the surface finish are much better.

4. 大直径浅孔钻系列可以更换不同尺寸刀夹，改变钻孔直径，大幅节约用户成本。
4.The series of big diameter U drill can be changed in different size of toolholder, changed in the drilling diameter. Help the users to cost saving substantially.

5. 新型双螺旋内冷孔，冷却和润滑效果更好，钻削效果更佳。
5.The new type of double helix internal cooling hole, cooling and lubricating are much better, and can drilling deeper.

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## ★ 可转位浅孔钻型号表示规则 Indexable U Drill

| 代号 | 刀长 W | 刀长 S |
|---|---|---|
| 03 | 3.8 | |
| 04 | 4.3 | |
| 05 | 5.4 | 5.0 |
| 06 | 6.5 | 6.0 |
| 07 | | 7.94 |
| 08 | 8.7 | |
| 09 | | 9.8 |
| 11 | | 11.5 |
| 14 | | 14.3 |

切削刃长度 Cutting Edge Length

20,25,30,40,50
长径比 Length-diameter Ratio

W 80°
S □
刀片形状 Indexable Shape

**UD 30 . SP 06 . 160 . W25**

| 刀具类型 Type Of Tools | |
|---|---|
| 代号 | 说明 |
| UD | 浅孔钻 U drill |

| | |
|---|---|
| C | 7° |
| P | 11° |

刀片后角 Insert Clearance Angle

范围 125-580 / 12.5mm~58mm
刀具直径 Diameter

W 侧固式
接口样式 Adapter

接口直径 Diameter

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## ★ 可转位浅孔钻刀片命名规则 Indexable U Drill Inserts Code Key

| 代号 | 刀片形状 |
|---|---|
| S | |
| W | |

形状代号

| 代号 | 刀尖高度m 公差(mm) | 刀尖高度m 公差(mm) | 厚度S 公差(mm) | 代号 | 刀尖高度m 公差(mm) | 刀尖高度m 公差(mm) | 厚度S 公差(mm) |
|---|---|---|---|---|---|---|---|
| A | ±0.005 | ±0.025 | ±0.025 | A | ±0.005 | ±0.05±0.13 | ±0.025 |
| F | ±0.005 | ±0.013 | ±0.025 | F | ±0.013 | ±0.05±0.13 | ±0.025 |
| C | ±0.013 | ±0.025 | ±0.025 | C | ±0.025 | ±0.05±0.13 | ±0.025 |
| H | ±0.013 | ±0.013 | ±0.013 | H | ±0.08±0.18 | ±0.05±0.13 | ±0.13 |
| E | ±0.025 | ±0.025 | ±0.025 | E | ±0.08±0.18 | ±0.05±0.13 | ±0.025 |
| G | ±0.025 | ±0.025 | ±0.13 | G | ±0.13±0.38 | ±0.08±0.25 | ±0.13 |

公差

# W C M X

### 主切削刃后角

| 代号 | 后角(度) | 代号 | 后角(度) |
|---|---|---|---|
| A | 3° | B | 5° |
| C | 7° | D | 15° |
| E | 20° | F | 25° |
| G | 30° | N | 0° |
| P | 11° | O | 其他的后角 |

### 公制

| 代号 | 有无孔 | 有无断屑槽 | 刀片剖面 | 代号 | 有无孔 | 有无断屑槽 | 刀片剖面 |
|---|---|---|---|---|---|---|---|
| B | 有 | 无 | >65° | N | 无 | 无 | |
| H | 有 | 单面 | >65° | R | 无 | 单面 | |
| C | 有 | 无 | >65° | F | 无 | 双面 | |
| J | 有 | 双面 | >65° | A | 有 | 无 | |
| W | 有 | 无 | ≤65° | M | 有 | 单面 | |
| T | 有 | 单面 | ≤65° | G | 有 | 双面 | |
| Q | 有 | 无 | ≤65° | X | --- | --- | 特殊 |
| U | 有 | 双面 | ≤65° | | | | |

断屑槽及夹固形式



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| 代号 | 刃长 W | 刃长 S |
|---|---|---|
| 03 | 3.8 | |
| 04 | 4.3 | |
| 05 | 5.4 | 5.0 |
| 06 | 6.5 | 6.0 |
| 07 | | 7.94 |
| 08 | 8.7 | |
| 09 | | 9.8 |
| 11 | | 11.5 |
| 14 | | 14.3 |

切削刃长度（mm）

厚度指刀片底面与切削刀具最高部分之间的高度

| 代号 | 刀片厚度(mm) | 代号 | 刀片厚度(mm) |
|---|---|---|---|
| 00 | 0.79 | 05 | 5.96 |
| T0 | 0.99 | T5 | 5.95 |
| 01 | 1.59 | 06 | 6.35 |
| T1 | 1.98 | T6 | 6.75 |
| 02 | 2.38 | 07 | 7.94 |
| T2 | 2.58 | 09 | 9.52 |
| 03 | 3.18 | T9 | 9.72 |
| T3 | 3.97 | 11 | 11.11 |
| 04 | 4.76 | 12 | 12.70 |
| T4 | 4.96 | | |

刀片厚度

# 08 04 12 R - DM

### 刀尖圆弧半径

| 代号 | 说明 |
|---|---|
| 04 | 0.4mm |
| 08 | 0.8mm |
| 12 | 1.2mm |

### 切削方向

| 代号 | 说明 |
|---|---|
| R | 右 |
| L | 左 |
| N | 双向 |

### 断屑槽型代号



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## 使用快速钻头注意事项

1. 使用快速钻头尽量有高压中心出水，以增加刀片使用寿命及排屑良好。
2. 使用CNC车床时刀具中心点与机械主轴中心尽量平行。
3. CNC车床使用如须扩孔，刀片外刃必须和刀塔移动角度平行。
4. 随时注意刀片磨损状况，如有异声立即停机检查。

## WARNING

1. Use the High Speed Dril the best to drain water from the high pressure center to extending inserts life and good for removing the metal chips
2. Using CNC Lathe the cutting center point with spindle center of Machine best to be paralle .
3. If you need to expand hole when using CNC Lathe, the outer insert must parallel with the remove angle of cutter tower.
4. The inserts have to be checked regularly for wear,and stop immediately once noise occurred.

# 浅孔钻切削数据参考

Recommended cutting parameters for u drills

### 孔公差 Hole tolerance

| 钻削深度 Drilling depth | 孔公差 Hole tolerance |
|---|---|
| 2XD | +0.2/-0.1 |
| 3XD | +0.25/-0.1 |
| 4XD | +0.3/-0.1 |
| 5XD | +0.4/-0.1 |

### 推荐-钻切削条件

Recommended drilling and cutting condition

| 材质 Materials | 速度 (m/min) | 进给量 fn(mm/rev) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Ø12.5-Ø15 | Ø15.5-Ø21.5 | Ø22-Ø27.5 | Ø28-Ø33 | Ø34-Ø41 | Ø42-Ø50 | Ø51-Ø56 | Ø57-Ø66 | Ø67-Ø73 | Ø74-Ø80 |
| 低碳钢（-0.3%C）Low carbon steel | 180-250 | 0.05-0.08 | 0.06-0.10 | 0.06-0.12 | 0.07-0.13 | 0.08-0.15 | 0.08-0.16 | 0.08-0.12 | 0.08-0.12 | 0.08-0.12 | 0.08-0.12 |
| 碳钢（0.3%C-）Caroon steel | 180-220 | 0.08-0.12 | 0.08-0.15 | 0.10-0.18 | 0.12-0.22 | 0.12-0.24 | 0.13-0.25 | 0.10-0.15 | 0.12-0.18 | 0.12-0.18 | 0.12-0.18 |
| 低碳合金钢 Low alloy steel | 150-220 | 0.06-0.12 | 0.08-0.14 | 0.10-0.18 | 0.12-0.22 | 0.12-0.23 | 0.13-0.24 | 0.08-0.15 | 0.10-0.18 | 0.10-0.18 | 0.10-0.18 |
| 高碳合金钢 High alloy steel | 130-180 | 0.06-0.10 | 0.08-0.15 | 0.10-0.20 | 0.12-0.23 | 0.12-0.24 | 0.13-0.25 | 0.08-0.15 | 0.10-0.15 | 0.10-0.15 | 0.10-0.15 |
| 不锈钢 Stainless steel | 170-240 | 0.05-0.10 | 0.06-0.12 | 0.08-0.15 | 0.09-0.16 | 0.10-0.17 | 0.11-0.19 | 0.08-0.12 | 0.08-0.15 | 0.08-0.15 | 0.08-0.15 |
| 铸铁 Cast iron | 180-250 | 0.06-0.12 | 0.08-0.16 | 0.12-0.20 | 0.15-0.25 | 0.16-0.28 | 0.18-0.30 | 0.12-0.20 | 0.15-0.22 | 0.15-0.22 | 0.15-0.22 |
| 球墨铸铁 Nodular cast iron | 130-200 | 0.06-0.10 | 0.08-0.15 | 0.10-0.18 | 0.12-0.20 | 0.15-0.23 | 0.16-0.25 | 0.10-0.15 | 0.10-0.20 | 0.10-0.20 | 0.10-0.20 |
| 铝合金 Aluminum alloy | 330-380 | 0.06-0.14 | 0.08-0.15 | 0.10-0.20 | 0.12-0.22 | 0.14-0.23 | 0.15-0.26 | 0.15-0.22 | 0.15-0.25 | 0.15-0.25 | 0.15-0.25 |
| 钛合金 Titanium alloy | 30-60 | 0.05-0.10 | 0.06-0.14 | 0.08-0.18 | 0.10-0.22 | 0.14-0.23 | 0.15-0.24 | 0.10-0.15 | 0.12-0.16 | 0.12-0.16 | 0.12-0.16 |



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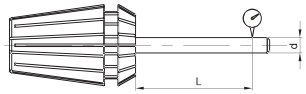
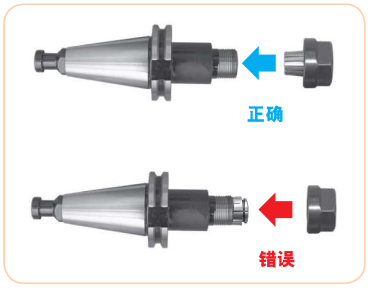
# 弹簧夹头刀柄




## 安装方法




**ER-A和ER-UP卡簧跳动对照表**

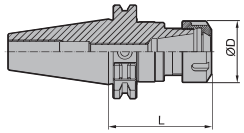
| 夹持范围(mm) | | 最大跳动值(mm) | | |
|---|---|---|---|---|
| d | L | DIN6499/ISO15488 From B | ER-A | ER-UP |
| 1.0~1.6 | 6.0 | 0.015 | 0.010 | 0.005 |
| 1.6~3.0 | 10.0 | | | |
| 3.0~6.0 | 16.0 | | | |
| 6.0~10.0 | 25.0 | | | |
| 10.0~18.0 | 40.0 | 0.020 | 0.010 | 0.005 |
| 18.0~26.0 | 50.0 | | | |
| 26.0~34.0 | 60.0 | 0.025 | 0.015 | 0.010 |

注：ER-A和ER-UP卡簧的最大跳动值均小于DIN6499/ISO15488中规定的最大跳动值!





# 弹簧夹头刀柄(JT)

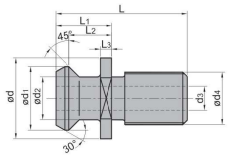



| 型号 | 锥度号 | 基本尺寸(mm) | | 标准配置 | 选购附件 | | | | | 重量(kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ØD | L | 螺母 | 精密级卡簧 | 高精密级卡簧 | 机械式密封卡簧 | 攻丝卡簧 | 扳手 | |
| **JT30-ER16-70H** | 30 | 28 | 70 | Hi-Q/ER16 | ER16-□□A | ER16-□□UP | ER16-□□DM | ER16-□□GB | E16P | 0.50 |
| **JT30-ER16-100H** | 30 | 28 | 100 | Hi-Q/ER16 | ER16-□□A | ER16-□□UP | ER16-□□DM | ER16-□□GB | E16P | 0.61 |
| **JT30-ER25-60H** | 30 | 42 | 60 | Hi-Q/ER25 | ER25-□□A | ER25-□□UP | ER25-□□DM | ER25-□□GB | E25 | 0.51 |
| **JT40-ER11-100H** | 40 | 19 | 100 | Hi-Q/ER11 | ER11-□□A | ER11-□□UP | ER11-□□DM | ER11-□□GB | E11P | 1.04 |
| **JT40-ER16-70H** | 40 | 28 | 70 | Hi-Q/ER16 | ER16-□□A | ER16-□□UP | ER16-□□DM | ER16-□□GB | E16P | 1.07 |
| **JT40-ER16-100H** | 40 | 28 | 100 | Hi-Q/ER16 | ER16-□□A | ER16-□□UP | ER16-□□DM | ER16-□□GB | E16P | 1.18 |
| **JT40-ER16-160H** | 40 | 28 | 160 | Hi-Q/ER16 | ER16-□□A | ER16-□□UP | ER16-□□DM | ER16-□□GB | E16P | 1.36 |
| **JT40-ER20-70H** | 40 | 34 | 70 | Hi-Q/ER20 | ER20-□□A | ER20-□□UP | ER20-□□DM | ER20-□□GB | E20P | 1.07 |
| **JT40-ER20-100H** | 40 | 34 | 100 | Hi-Q/ER20 | ER20-□□A | ER20-□□UP | ER20-□□DM | ER20-□□GB | E20P | 1.17 |
| **JT40-ER25-70H** | 40 | 42 | 70 | Hi-Q/ER25 | ER25-□□A | ER25-□□UP | ER25-□□DM | ER25-□□GB | E25 | 1.15 |
| **JT40-ER25-100H** | 40 | 42 | 100 | Hi-Q/ER25 | ER25-□□A | ER25-□□UP | ER25-□□DM | ER25-□□GB | E25 | 1.40 |
| **JT40-ER25-160H** | 40 | 42 | 160 | Hi-Q/ER25 | ER25-□□A | ER25-□□UP | ER25-□□DM | ER25-□□GB | E25 | 1.55 |
| **JT40-ER32-70H** | 40 | 50 | 70 | Hi-Q/ER32 | ER32-□□A | ER32-□□UP | ER32-□□DM | ER32-□□GB | E32 | 1.17 |
| **JT40-ER32-100H** | 40 | 50 | 100 | Hi-Q/ER32 | ER32-□□A | ER32-□□UP | ER32-□□DM | ER32-□□GB | E32 | 1.43 |
| **JT40-ER32-160H** | 40 | 50 | 160 | Hi-Q/ER32 | ER32-□□A | ER32-□□UP | ER32-□□DM | ER32-□□GB | E32 | 1.81 |
| **JT40-ER40-80H** | 40 | 63 | 80 | Hi-Q/ER40 | ER40-□□A | ER40-□□UP | ER40-□□DM | ER40-□□GB | E40 | 1.41 |
| **JT40-ER40-100H** | 40 | 63 | 100 | Hi-Q/ER40 | ER40-□□A | ER40-□□UP | ER40-□□DM | ER40-□□GB | E40 | 1.70 |
| **JT40-ER40-160H** | 40 | 63 | 160 | Hi-Q/ER40 | ER40-□□A | ER40-□□UP | ER40-□□DM | ER40-□□GB | E40 | 2.55 |

## ★ 刀具附件 Spare parts

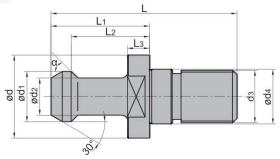
| 附件名 | 精密级卡簧 | 高精密级卡簧 | 机械式密封卡簧 | 攻丝卡簧 | 扳手 |
|---|---|---|---|---|---|
| | | | | | |

## 美国标准 ANSI B5.50



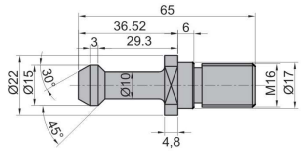

| 尺寸(mm) | | | | | | | | | 重量(kg) |
|---|---|---|---|---|---|---|---|---|---|
| L | L1 | L2 | L3 | d | d1 | d2 | d3 | d4 | |
| 29 | 11.80 | 8.15 | 2.75 | 16.5 | 13.55 | 9.30 | M12 | 4.15 | 0.02 |
| 39 | 16.40 | 11.15 | 3.25 | 22.5 | 18.95 | 12.95 | M16 | 7.35 | 0.07 |
| 60 | 25.55 | 17.95 | 5.25 | 37.0 | 29.10 | 19.60 | M24 | 11.55 | 0.20 |

## 日本标准 MAS403—1975




| 尺寸(mm) | | | | | | | | | | 重量(kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| L | L1 | L2 | L3 | d | d1 | d2 | d3 | d4 | α | |
| 43 | 23 | 18 | 5 | 16.5 | 11 | 7 | M12 | 12.5 | 45° | 0.03 |
| 43 | 23 | 18 | 5 | 16.5 | 11 | 7 | M12 | 12.5 | 60° | 0.03 |
| 60 | 35 | 28 | 6 | 23 | 15 | 10 | M16 | 17 | 45° | 0.06 |
| 60 | 35 | 28 | 6 | 23 | 15 | 10 | M16 | 17 | 60° | 0.06 |
| 85 | 45 | 35 | 10 | 38 | 23 | 17 | M24 | 25 | 45° | 0.20 |
| 85 | 45 | 35 | 10 | 38 | 23 | 17 | M24 | 25 | 60° | 0.20 |

## 专用拉钉 JDY40




★ 备注：2018-2019年产品型录所刊登产品含标准配件，但不包含配套刀片，特此说明！



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## 团结创新、开拓进取

## 诚信务实、互利共赢

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ZHUZHOU SANT CUTTING TOOLS CO.,LTD